

ABSTRACT

An accelerator solution is globally applied to a workpiece to form an accelerator film, and then a portion of the accelerator film is selectively removed from the workpiece to form an acceleration region having a higher concentration of
5 accelerator. The higher concentration of accelerator causes metal to deposit at a faster rate in the acceleration region than in a non-accelerated region for the duration of metal deposition. To make a metal feature, a resist layer is applied to a workpiece surface and patterned to form a recessed region and a field region. Then, a metal seed layer is deposited on the workpiece surface. An accelerator
10 solution is applied so that an accelerator film forms on the metal seed layer. A portion of the accelerator film is selectively removed from the field region, leaving another portion of the accelerator film in the recessed region. Then, copper is electroplated onto the workpiece, and the copper plates at an accelerated rate in the recessed region, resulting in a greater thickness of copper in the recessed
15 region compared to copper in the field region. A wet etch is performed to remove copper from the field region. Then, the resist is removed from the field region, resulting in a coarse copper wire.